TECHNICAL REVIEW DOCUMENT
For
RENEWAL / MODIFICATION TO OPERATING PERMIT 95OPAD047

Colorado Interstate Gas Company – Watkins Compressor Station
Adams County
Source ID 0010036

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May 2007
Revised November 8, 2007 to reflect pending changes to the attainment status

I. Purpose:

This document establishes the basis for decisions made regarding the applicable requirements, emission factors, monitoring plan and compliance status of emission units covered by the renewal and modification of the Operating Permit for the Watkins Compressor Station. The current Operating Permit for this facility was issued on July 1, 2003 and expires on July 1, 2008. The source submitted a renewal application on May 10, 2007. Prior to submittal of the renewal application, the source submitted an application on April 20, 2007 requesting that the permit be modified to revise the method to determine the Btu content of the natural gas used as fuel.

This document is designed for reference during review of the proposed permit by EPA and for future reference by the Division to aid in any additional permit modifications at this facility. The conclusions made in this report are based on the renewal application submitted on May 10, 2007 and the modification application submitted on April 20, 2007, previous inspection reports and various e-mail correspondence, as well as telephone conversations with the applicant. Please note that copies of the Technical Review Document for the original permit and any Technical Review Documents associated with subsequent modifications of the original Operating Permit may be found in the Division files as well as on the Division website at http://www.cdphe.state.co.us/ap/Titlev.html. This narrative is intended only as an adjunct for the reviewer and has no legal standing.

Any revisions made to the underlying construction permits associated with this facility made in conjunction with the processing of this operating permit application have been reviewed in accordance with the requirements of Regulation No. 3, Part B, Construction Permits, and have been found to meet all applicable substantive and procedural requirements. This operating permit incorporates and shall be considered to be a combined construction/operating permit for any such revision, and the permittee shall be allowed to operate under the revised conditions upon issuance of this operating permit without applying for a revision to this permit or for an additional or revised construction permit.

II. Description of Source

The facility is a natural gas compression facility as defined under Standard Industrial Classification 4922. Natural gas enters the Watkins facility at a pressure between 400 and 700 psig. Some of the gas is blended with air to achieve a customer specified Btu value prior to delivery to customers. The remaining natural gas is compressed up to a pressure of 920 psig. Eleven (11) internal combustion engines are used at this facility to drive compressors. In addition, an 8,400 gallon above ground gasoline storage tank and a cold cleaner solvent degreaser have been included in Section II of the operating permit as significant emission units.

Based on the information available to the Division and provided by the applicant, it appears that no modifications to these emission units has occurred since the issuance of the current operating permit.

The facility is located in Adams County about 3 miles east of Aurora. The Denver metro area is classified as attainment/maintenance for particulate matter less than 10 microns (PM_{10}), ozone and carbon monoxide. Under that classification, all SIP-approved requirements for PM_{10}, VOC and CO will continue to apply in order to prevent backsliding under the provisions of Section 110(l) of the Federal Clean Air Act. There are no federal Class I designated areas within 100 km of this facility and no affected states within 50 miles of this facility.

MACT Requirements

In the first renewal (issued July 1, 2003), the Division indicated that the facility was considered a major source for hazardous air pollutants (HAPS). The MACT requirements that potentially apply to this facility are as follows:

Case-by-Case MACT - 112(j) (40 CFR Part 63 Subpart B §§ 63.50 thru 63.56)

Under the federal Clean Air Act (the Act), EPA is charged with promulgating maximum achievable control technology (MACT) standards for major sources of hazardous air pollutants (HAPs) in various source categories by certain dates. Section 112(j) of the Act requires that permitting authorities develop a case-by-case MACT for any major sources of HAPs in source categories for which EPA failed to promulgate a MACT standard by May 15, 2002. These provisions are commonly referred to as the “MACT hammer”.

Owner or operators that could reasonably determine that they are a major source of HAPs which includes one or more stationary sources included in the source category or subcategory for which the EPA failed to promulgate a MACT standard by the section 112(j) deadline were required to submit a Part 1 application to revise the operating permit by May 15, 2002. The source did submit a Part 1 application to the Division prior to May 15, 2002, indicating that the facility was a major source for HAPS. Since the EPA has signed off on final rules for all of the source categories, which were not

promulgated by the deadline, the case-by-case MACT provisions in 112(j) no longer apply.

NGTS Facilities MACT(40 CFR Part 63 Subpart HHH)

Since there are no glycol dehydrators, the facility is not subject to the requirements in 40 CFR Part 63 Subpart HHH.

Reciprocating Internal Combustion Engine (RICE) MACT (40 CFR Part 63 Subpart ZZZZ)

An affected source under the RICE MACT is any existing, new or reconstructed stationary RICE with a site-rating of more than 500 brake horsepower. Engines E001 through E011 are affected sources under the RICE MACT. Engines E001 and E002 are 4-cycle lean burn engines and engines E003 through E011 are 2-cycle lean burn engines. Existing (commenced construction prior to December 19, 2002) 2-cycle lean burn and 4-cycle lean burn RICE do not have to meet the requirements in Subparts A or ZZZZ, including the initial notification requirements as provided for in 40 CFR Part 63 Subpart ZZZZ § 63.6590(b)(3).

Industrial, Commercial and Institutional Boilers and Process Heaters MACT (40 CFR Part 63 Subpart DDDDD)

There are boilers and process heaters included in the insignificant activity list in Appendix A of the permit. Although 40 CFR Part 63 Subpart DDDDD applies, existing (constructed before January 13, 2003) small gaseous fired units are not subject to any of the requirements in 40 CFR Part 63 Subparts A and DDDDD, including the initial notification requirements (§ 63.7506(c)(3)). The boilers and/or process heaters at this facility would fall under the existing small gaseous fired unit category and would therefore not be subject to any requirements.

Organic Liquid Distribution (Non-Gasoline) MACT (40 CFR Part 63 Subpart EEEE)

As provided for in 40 CFR Part 63 Subpart EEE § 63.2334(c)(2), organic liquid distribution operations do not include activities and equipment at NGTS facilities; therefore, the organic liquid distribution MACT requirements do not apply.

Compliance Assurance Monitoring (CAM) Requirements

CAM applies to any emission unit that is subject to an emission limitation, uses a control device to achieve compliance with that emission limitation and has potential pre-control emissions greater than major source levels. None of the significant emission units at this facility are equipped with control devices; therefore, the compliance assurance monitoring requirements do not apply to any emission units at this facility.

The summary of emissions that was presented in the Technical Review Document for the previous renewal permit has been modified to reflect the updated potential to emit (PTE) of both criteria and HAP pollutants due to changes that may have occurred in emission factors and/or emission limitations since the previous renewal permit was issued. Emissions (in tons/yr) at the facility are as follows:

Emission Unit	Potential to Emit (tons/yr)			
	NO_X	CO	VOC	HAPS
Engine E001	150.1	20.5	4.3	See Table on Page 8
Engine E002	150.1	20.5	4.3	
Engine E003	84.7	26.7	10.4	
Engine E004	84.7	26.7	10.4	
Engine E005	84.7	26.7	10.4	
Engine E006	84.7	26.7	10.4	
Engine E007	84.7	26.7	10.4	
Engine E008	84.7	26.7	10.4	
Engine E009	84.7	26.7	10.4	
Engine E010	84.7	26.7	10.4	
Engine E011	84.7	26.7	10.4	
Total	1,062.5	281.3	102.2	56.39

In the above table, the criteria pollutant PTE for the engines is based on either permitted emissions or the appropriate emission factors, design rate and 8760 hours per year of operation. Emissions from the gasoline storage tank and the cold cleaner solvent degreaser are below APEN de minimis levels and are therefore not included in the above table.

In the above table, the breakdown of HAP emissions by emission unit and individual HAP is provided on page 8 of this document. The HAP PTE is based on the Division's analysis. As indicated in the table footnotes on page 8, the HAP PTE was based on the highest emission factor in HAPCalc 3.0 (GRI field data, GRI literature and EPA) for each pollutant, design rate and 8,760 hrs/yr of operation. Emissions from the gasoline storage tank and the cold cleaner solvent vat were not included since emissions are below the APEN de minimis levels and the facility is major for HAPs without including them.

Even though actual emissions are typically much less than permitted emissions, the source usually reports permitted emissions as actual emissions, which is an acceptable practice; therefore actual emissions are not shown in either of the above tables.

III. Discussion of Modifications Made

Source Requested Modifications

The source's requested modifications identified in the modification request and the renewal application were addressed as follows:

April 20, 2007 Modification Request

In their modification request submitted on April 20, 2007, the source requested that the method used to determine the Btu content of the gas be revised (Section II, Condition 2.4). The source has requested that only two specific months of data from the in-line gas chromatograph be used to determine the Btu content, rather than the 6-month periods specified in the permit. The Division has revised the language as requested with a minor revision to clarify some language.

The source indicated that this modification qualified as a minor modification under the provisions of Colorado Regulation No. 3, Part C, Section X and requested that the modification be processed using the minor modification procedures in that section. The Division agreed that the requested modification qualified as a minor modification and sent a letter dated May 2, 2007 indicating that the minor modification application was complete and indicated that we would include the minor modification in the Title V renewal permit, rather than issue a separate revised permit.

May 10, 2007 Renewal Application

In their renewal application the source also requested that the method used to determine the Btu content of the gas (Section II, Condition 2.4) be revised. As noted above, the Division made the change as requested, with minor change to the language.

Other Modifications

In addition to the source requested modifications, the Division has included changes to make the permit more consistent with recently issued permits, include comments made by EPA on other Operating Permits, as well as correct errors or omissions identified during inspections and/or discrepancies identified during review of this renewal.

The Division has made the following revisions, based on recent internal permit processing decisions and EPA comments to the Watkins Compressor Station Renewal Operating Permit. These changes are as follows:

Page Following Cover Page

- It should be noted that the monitoring and compliance periods and report and certification due dates are shown as examples. The appropriate monitoring and compliance periods and report and certification due dates will be filled in after permit issuance and will be based on permit issuance date. Note that the source may

request to keep the same monitoring and compliance periods and report and certification due dates as were provided in the original permit. However, it should be noted that with this option, depending on the permit issuance date, the first monitoring period and compliance period may be short (i.e. less than 6 months and less than 1 year).

Section I – General Activities and Summary

- Prior to issuance of the permit, the language in Condition 1.1 and 3 was revised to reflect the change in attainment status that is expected November 20, 2007.

- In Condition 1.4 General Condition 3.d was added as a State-only requirement.

- Added a column to the Table in Condition 6.1 for the startup date of the equipment.

- According to the Division's June 17, 2005 inspection report, the designations for engines E003 through E011 indicated in the Table in Condition 6.1 are mixed up. These have been corrected per the Division's inspection report. Note that the information in the inspection report was consistent with the information provided in the original Title V permit application submitted on March 1, 1995, with the following exceptions:

    - In the original application a serial number of 48943 was provided for E011, this was presumably and error and should have been 48543.

    - In the original application, construction permit numbers for engines E003 through E007 were listed as C11,629-1 through –5. However, the construction permit numbers should have been C11,630-1 through –5, since the Division only issued four permits under the number C11,629 (i.e. C11,629-1 through –4).

Section II.2 – Engines E003 through E011

- Replaced the portable monitoring language with the latest version

Section IV – General Conditions

- The upset revisions in the Common Provisions Regulation (general condition 3.d) were revised December 15, 2006 (effective March 7, 2007) and the revisions were included in the permit. Note that these provisions are state-only enforceable until approved by EPA into Colorado's state implementation plan (SIP).

- Replaced the reference to "upset" in Condition 5 (emergency provisions) and 21 (prompt deviation reporting) with "malfunction".

- General Condition No. 21 (prompt deviation reporting) was revised to include the definition of prompt in 40 CFR Part 71.

- Replaced the phrase “enhanced monitoring” with “compliance assurance monitoring” in General Condition No. 22.d.

Appendices

- According to the Division’s April 20, 2004 inspection report, there is an emergency generator at the facility and it has been included in the insignificant activity list in Appendix A of the permit.

- Replaced Appendices B and C with latest version. The designations for engines E003 through E011 were corrected as discussed previously.

- Changed the mailing address for EPA in Appendix D.

HAPS from GRI-HAPCalc 3.0 (Highest Possible)

Unit	HAP Emissions (tons/yr)										
	acetaldehyde	acrolein	benezene	toluene	ethyl benzene	xylene	formaldehyde	2,2,4 trimethylpentane	n-hexane	methanol	**total**
E001	1.96E-01	8.57E-02	4.98E-02	3.11E-01	3.70E-03	1.47E-02	1.47	1.52E-02	3.73E-02	5.15E-02	2.24
E002	1.96E-01	8.57E-02	4.98E-02	3.11E-01	3.70E-03	1.47E-02	1.47	1.52E-02	3.73E-02	5.15E-02	2.24
E003	3.66E-01	4.37E-01	7.92E-02	2.34E-02	4.30E-03	1.07E-02	4.57	1.77E-02	7.09E-02	1.88E-01	5.77
E004	3.66E-01	4.37E-01	7.92E-02	2.34E-02	4.30E-03	1.07E-02	4.57	1.77E-02	7.09E-02	1.88E-01	5.77
E005	3.66E-01	4.37E-01	7.92E-02	2.34E-02	4.30E-03	1.07E-02	4.57	1.77E-02	7.09E-02	1.88E-01	5.77
E006	3.66E-01	4.37E-01	7.92E-02	2.34E-02	4.30E-03	1.07E-02	4.57	1.77E-02	7.09E-02	1.88E-01	5.77
E007	3.66E-01	4.37E-01	7.92E-02	2.34E-02	4.30E-03	1.07E-02	4.57	1.77E-02	7.09E-02	1.88E-01	5.77
E008	3.66E-01	4.37E-01	7.92E-02	2.34E-02	4.30E-03	1.07E-02	4.57	1.77E-02	7.09E-02	1.88E-01	5.77
E009	3.66E-01	4.37E-01	7.92E-02	2.34E-02	4.30E-03	1.07E-02	4.57	1.77E-02	7.09E-02	1.88E-01	5.77
E010	3.66E-01	4.37E-01	7.92E-02	2.34E-02	4.30E-03	1.07E-02	4.57	1.77E-02	7.09E-02	1.88E-01	5.77
E011	3.66E-01	4.37E-01	7.92E-02	2.34E-02	0.00	1.07E-02	4.57	0.02	7.09E-02	1.88E-01	5.77
Total	3.69	4.11	0.81	0.83	0.05	0.13	44.07	0.19	0.71	1.80	56.39

Engine emissions are based on the highest emission factor from HAPCalc 3.0 - (GRI field data, GRI literature data and/or EPA) for each pollutant.